



ZVC7630W

Wireless 2-way Audio **IP Cam**
w/ Night-vision



USER MANUAL

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Chapter 1

Introduction

Thank you for purchasing the Zonet ZVC7630W, a Wireless Two-way Audio IP Cam w/ Night-vision. It is a powerful dual-codec Wireless IP Camera with the 1 or 2 ways audio function which provides a high quality image and on-the-spot audio via the Internet. The infrared LEDs and light sensor enable the camera to capture images even in the dark environment. ZVC7630W can be installed as a standalone system within your application environment easily and quickly. It supports remote management function so that you can access and control it using a web browser of your computer.

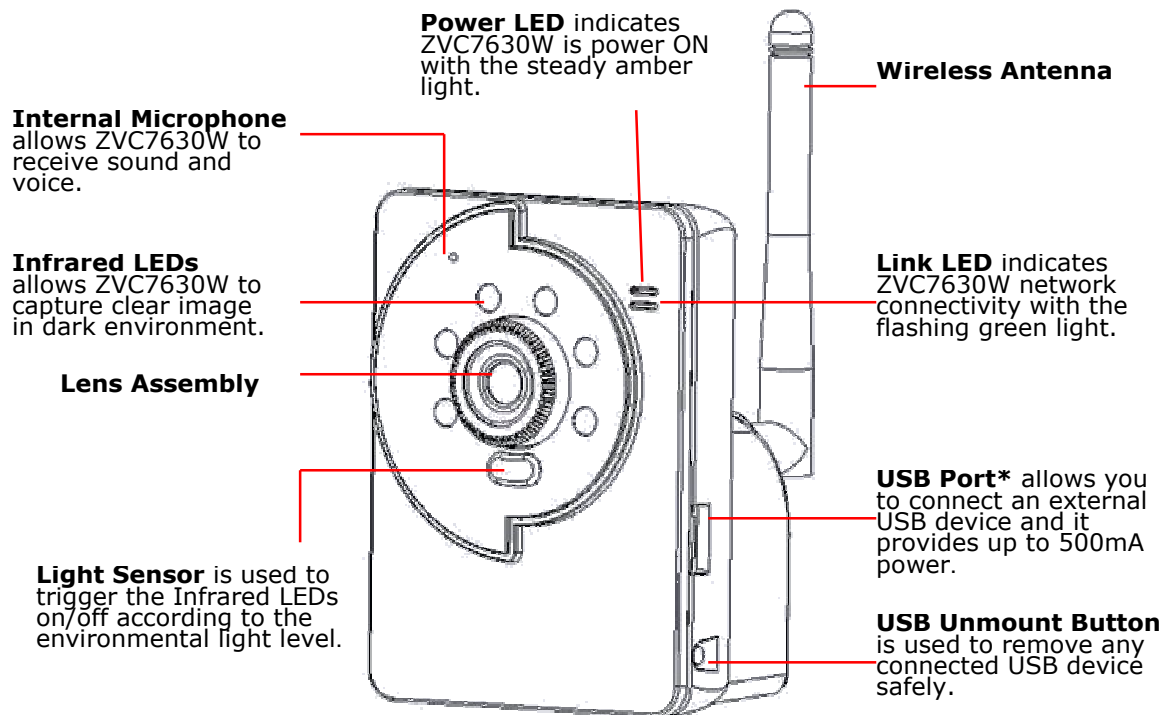
1.1 Package Contents

Check the items contained in the package carefully before installation.

- ☑ One ZVC7630W
- ☑ One AC Power Adapter
- ☑ One Wireless Antenna.
- ☑ One Camera Stand.
- ☑ One RJ-45 Ethernet Cable
- ☑ One Installation CD w/ User Manual
- ☑ One Quick Installation Guide.

NOTE: Contact your local authorized reseller or the store purchased from for any items damaged and/or missing.

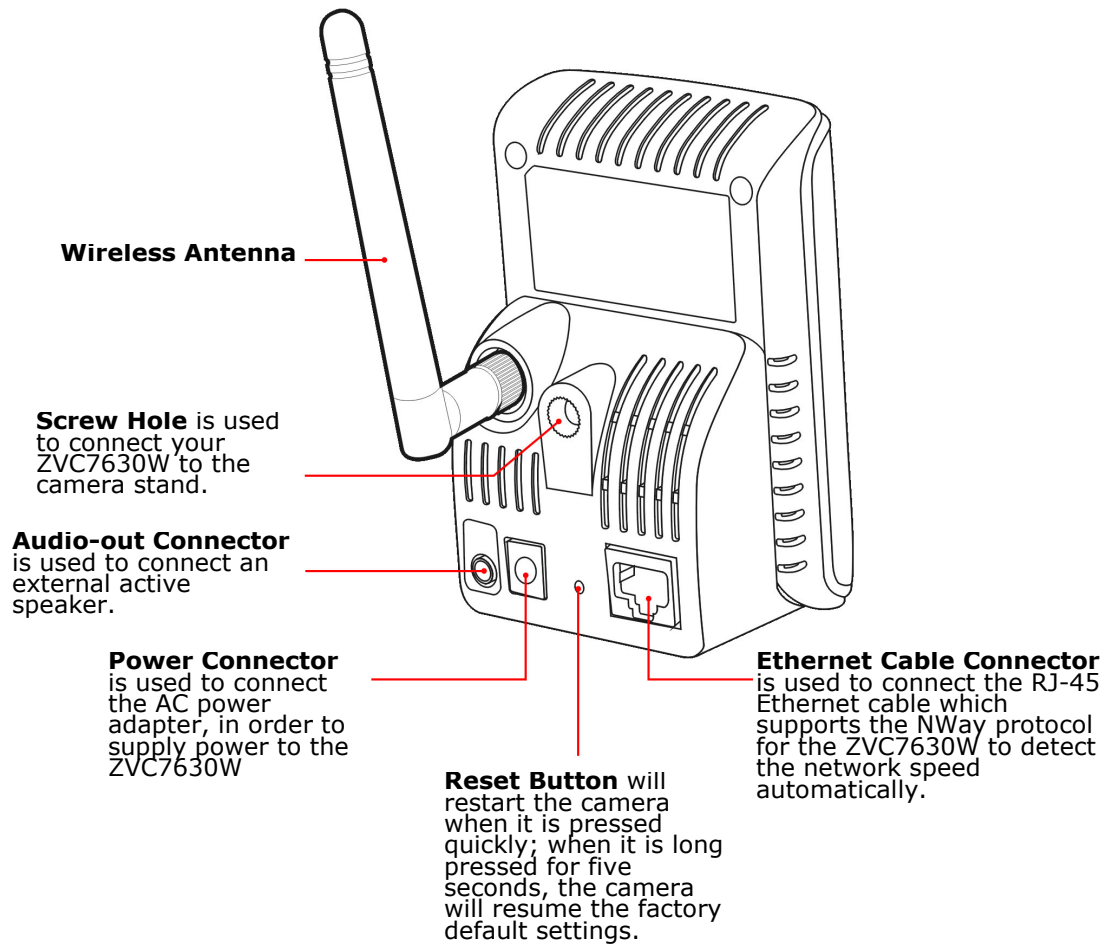
1.2 Know Your ZVC7630W



Front View

ZVC7630W USB port supports WCN (Windows Connect Now) technology. It allows notebook computer to set up and store wireless network configuration to the USB storage device and retrieve the settings.

NOTE: Press and hold the USB Unmount button for four (4) seconds, the Power LED will start flashing. You can safely remove the ZVC7630 when the Power LED resumes to the steady amber light.



Rear View

1.3 Features and Benefits

■ **MPEG4/MJPEG Dual-codec Support**

ZVC7630W gives you excellent images with the MPEG4/ MJPEG dual-codec selectable technology. It allows you to adjust image size, quality, and bit rate according to your networking environment.

■ **1-way/2-way Audio Capability**

The built-in microphone of the ZVC7630W provides on-the-spot audio via the Internet. It allows you to monitor On-Site sound. In addition, you can connect an external speaker to speak through the camera (for 2-way audio model only). ZVC7630W embedded with an echo-cancellation processor to provide better sound quality.

■ **Day & Night Surveillance Support**

Six Infrared LEDs around the standard lens enables the ZVC7630W to capture crystal clear images in dark environments and at night. When Light Sensor detects the environmental light level becomes low, it captures images in black & white mode using these infrared LEDs.

■ **Multiple Profiles Support**

The ZVC7630W supports multiple profiles simultaneously, which allows you to set up different image settings, such as image quality and frame rate, for three different video types: MPEG4, MJPEG, and 3GPP.

■ **RTSP Support**

The ZVC7630W supports RTSP (Real Time Streaming Protocol). It is a technology that allows you to view streaming media via the network. You can view real-time media with Quick Time player or RealPlayer. To view the real-time streaming media on your computer, open your web browser and enter the RTSP link, for example: [rtsp://\(IP address of the camera\)/mpeg4](rtsp://(IP address of the camera)/mpeg4).

■ **Remote Control Support**

Use your standard web browser or the bundled software "Ultra View", an administrator can easily change the configuration of the ZVC7630W over the network. In addition, ZVC7630W can be upgraded remotely when a new firmware is available. Normal users can also monitor the image and take snapshots via the network.

■ **External Devices Support**

You can connect the ZVC7630W to a variety of external devices with the auxiliary Input/Output connectors, such as external speaker and other USB devices.

■ **Multiple Platforms Support**

ZVC7630W supports multiple network protocols – TCP/IP, SMTP, HTTP, and other Internet related protocols. You can use it in a mixed operating system environment, such as Windows 2000 and Windows XP.

■ **Multiple Applications Support**

Through the remote access technology, you can monitor various objects and places for different purposes with ZVC7630W. For example, babies at home, patients in the hospital, offices, banks, and many more. ZVC7630W can capture images and video clips, and you can save and restore them any time.

1.4 System Requirements

■ Networking

LAN: 10Base-T Ethernet / 100Base-TX Fast Ethernet

WLAN: IEEE 802.11b/g

■ Accessing the Camera using Web Browser

Platform: Windows 2000/XP/Vista

CPU: Intel Pentium III 350MHz or above

RAM: 128MB or above

VGA Resolution: 800x600 or above

Web browser support: Internet Explorer 5.0 or above

■ Accessing the Camera using *Ultra View*

Platform: Windows 2000/XP/Vista

■ Hardware Requirements

One ZVC7630W:

Intel P-III 800MHz / 512MB RAM or above

Two to Four ZVC7630W:

Intel P-4 1.3GHz / 512MB RAM or above

Five to Eight ZVC7630W:

Intel P-4 2.4GHz / 1GB RAM or above

Nine to Sixteen ZVC7630W:

Intel P-4 3.4GHz / 2GB RAM or above

VGA Resolution: 1024x768 or above

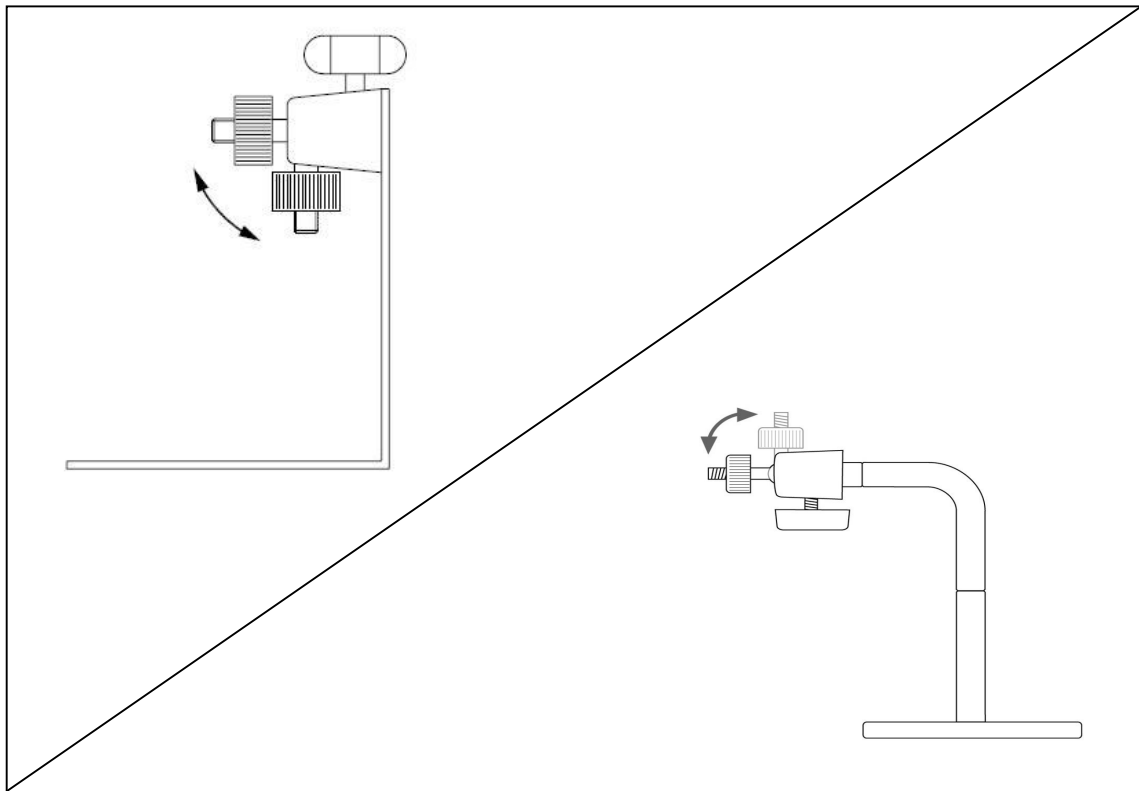
NOTE: If the ZVC7630W is not able to connect to your wireless network (WLAN), you have to configure the wireless settings through your network by using the RJ-45 Ethernet Cable.

Chapter 2

Hardware Installation

2.1 Camera Stand Installation

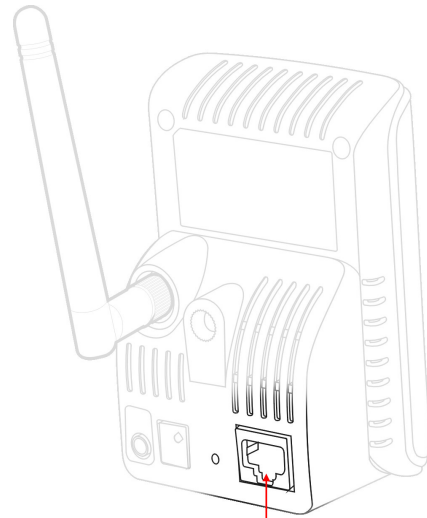
ZVC7630W comes with a Camera Stand which uses a swivel ball screw head to lock the screw-holes at the back of the unit. When the stand is attached to your ZVC7630W, you can place it anywhere by mounting it through the three screw-holes at the bottom of the Camera Stand.



Camera Stand

2.2 Connecting ZVC7630W to Your Network

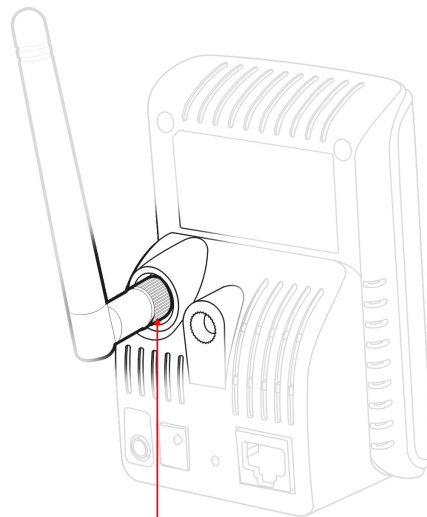
Use the provided RJ-45 Ethernet cable to connect the ZVC7630W to your network. The ZVC7630W will power ON automatically after you connect the AC Power Adapter to the power connector. You may verify the power status from the Power LED on the front panel. Once you completed the connection, Link LED will start flash in green, ZVC7630W is at standby mode, and it is ready to use.



RJ-45 Ethernet Cable Connector

You have to connect the Wireless Antenna to the ZVC7630W if you'd like to use it in a wireless network environment.

ZVC7630W will start searching any available wireless networks around it after it is power ON.



Wireless Antenna

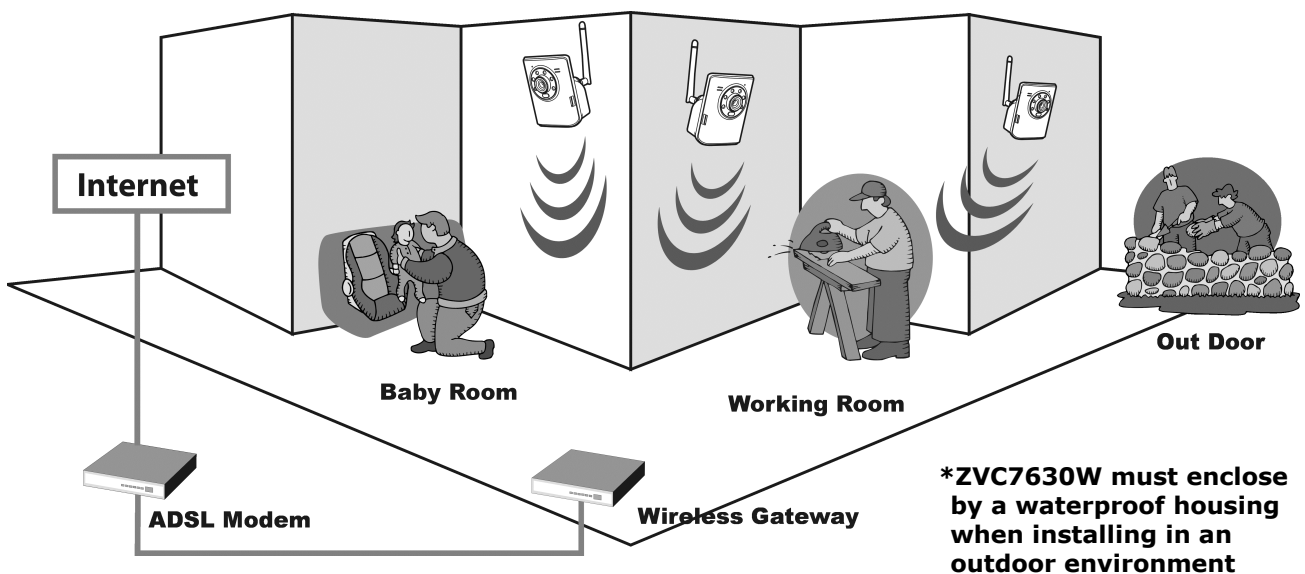
NOTE: If the ZVC7630W is not able to connect to your wireless network (WLAN), you have to configure the wireless settings through your network by using the RJ-45 Ethernet Cable.

2.3 ZVC7630W Application Example

ZVC7630W can be applied in multiple applications, including but not limited to the followings:

- Monitor different places and objects via Internet or Intranet locally and remotely.
- Capture images and video clips remotely.
- Upload images and email messages with the images.

The following diagram explains one of the most typical applications for the ZVC7630W. It also provides a basic example of the ZVC7630W installation.



Home Applications

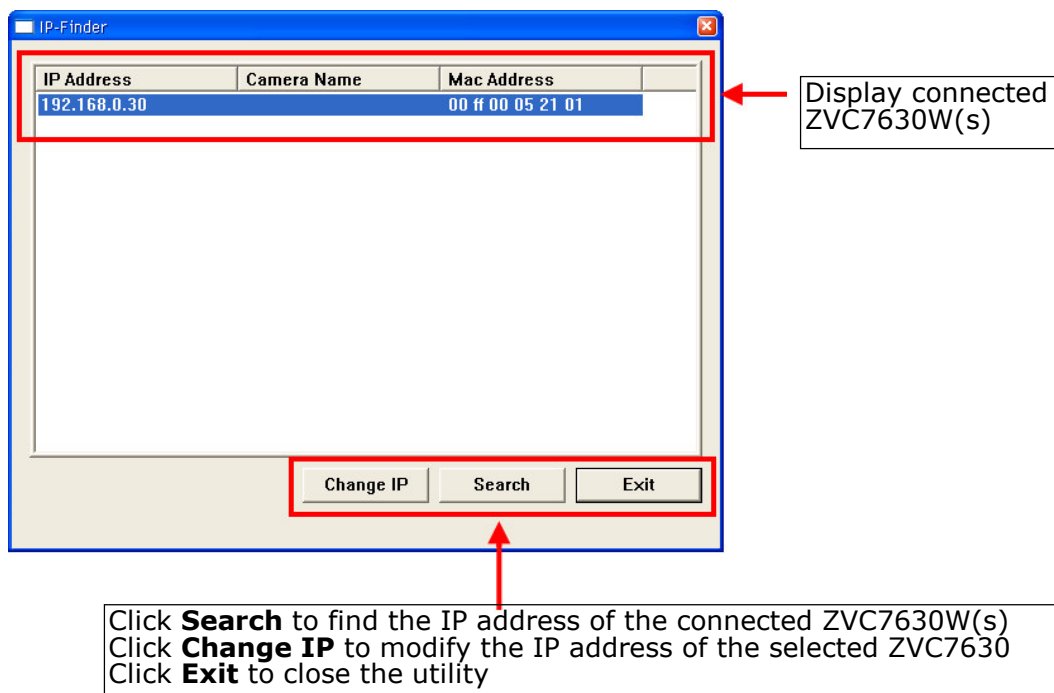
Chapter 3

Access your ZVC7630W

3.1 Using IP Finder

ZVC7630W comes with an easy to use utility, **IP Finder**, in the Installation CD. It allows you to find the ZVC7630W on your network easily.

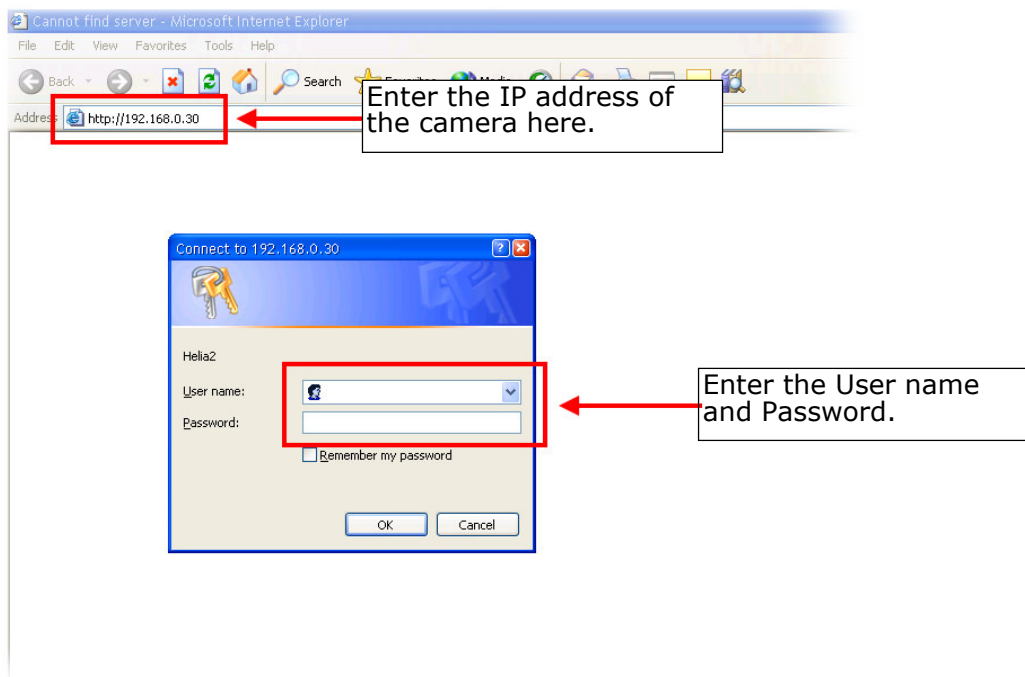
1. Insert the Installation CD to CD-ROM drive and initiate the Auto-Run program
2. Double-click the **IP Finder** to launch the utility. The control panel will appear as below.



3. Once you have the IP address of the ZVC7630W(s), you may use your web browser or **Ultra View** to access it.

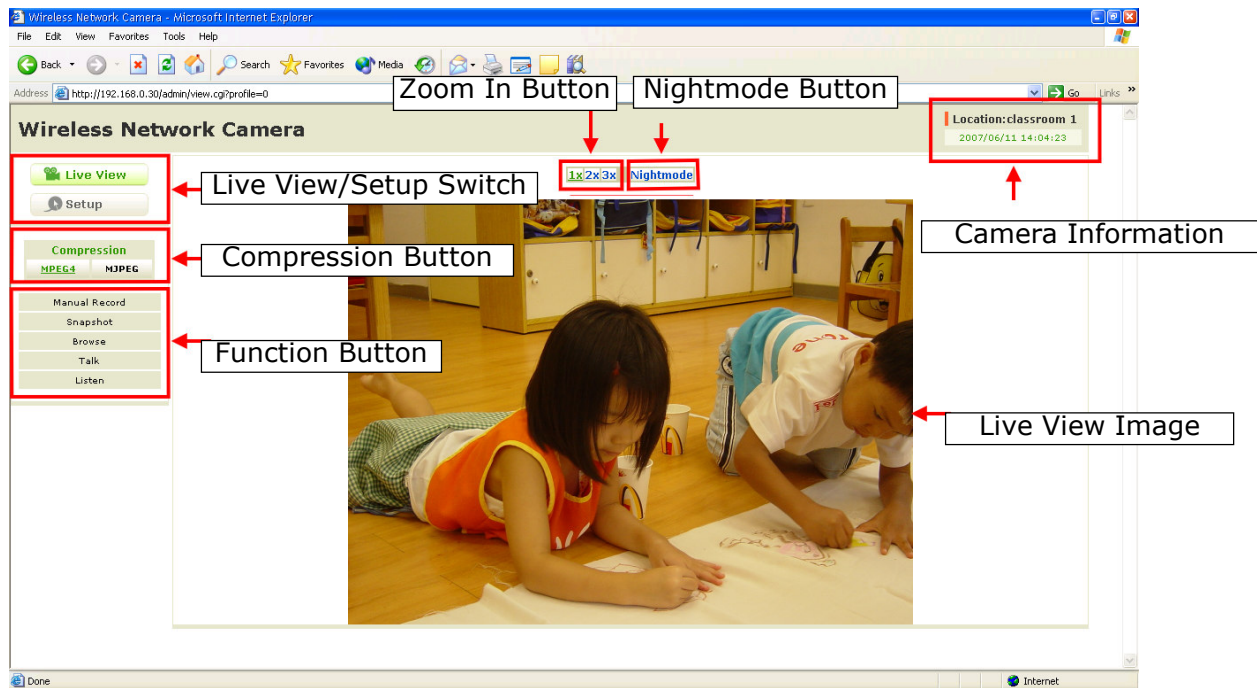
3.2 Login to your ZVC7630

1. Open your web browser and enter the ZVC7630 IP address on the address bar.
 - a. Default IP address: <http://192.168.0.30> then press [Enter]
2. The login window will appear, enter the username and password then press **OK** to access to the main screen of the ZVC7630 Web Configuration.
 - a. Default Username: **admin** (all lowercases)
 - b. Default Password: **admin** (all lowercases)



*NOTE: If this is the first time you access the ZVC7630, you will be asked to install a new plug-in. Permission request depends on the Internet security settings of your browser. Please click **Yes** to proceed.*

After you login into the ZVC7630W Web Configuration main screen, the following screen will appear.



The Web Configuration provides you with many useful information and functions, including:

- **Camera Information** – Display the location of your ZVC7630W with the current date & time. This information can be modified in the Web Configuration.
- **Live View Image** – Displays a real-time image of the connected ZVC7630W.
- **Live View/Setup Switch** – Click **Setup** to configure the ZVC7630W. See Chapter 4 for more details.
- **Compression Button** – Select to transmit and record the video using MPEG4 or MJPEG compression.
- **Function Button** – Use these buttons to control the audio and video functions.
 - **Manual Record** allows you to record and save a video clip
 - **Snapshot** allows you to capture and save an image
 - **Browse** allows you to save the video clips and image to a designated folder

- **Talk** allows you to speak through the ZVC7630W. Note that this button displays only for the 2-way audio model and only one user is allowed to use this function at a time.
 - **Listen** allows you receive the On-Site sound and voice from the ZVC7630W
-
- **Zoom In Button** – Click the button to zoom in / out the live view image by 1x, 2x, and 3x
 - **Nightmode Button** – Click the button to enable the “Nightshot mode” to deliver clearer images in the dark environment. However, this will also reduce the frame rate of the video setting.

3.3 IP Address Configuration

You have to check the IP address of your computer if you failed to access the ZVC7630W. When connecting the ZVC7630W directly to your computer, you have to set up your computer IP address within the same subnet in order for them to communicate correctly.

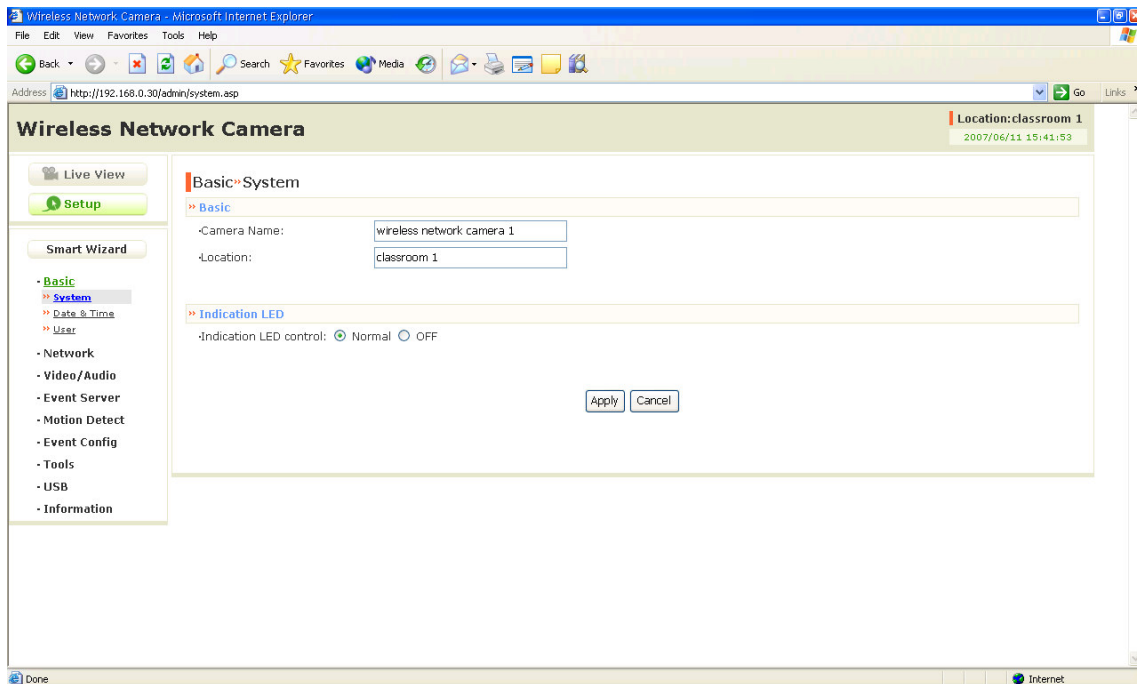
1. On your computer, click **Start > Control Panel** to open the Control Panel window
2. Double-click **Network Connection** to open the Network Connection window
3. Right-click **Local Area Connection** and click **Properties**, then select the **General** tab
4. Select **Internet Protocol [TCP/IP]** and click **Properties** to bring up the Internet Protocol [TCP/IP] Properties window
5. Configure a fixed IP address that is within the same subnet of the ZVC7630W. Select **Use the following IP address** option and enter an IP address and Subnet Mask into the empty field, for example: IP Address is 192.168.0.x where x is between 0~254 except 30 and Subnet Mask is 255.255.255.0.
6. Click **OK** after you finish.

Chapter 4

ZVC7630W Configuration

4.1 Using the Web Browser

To configure the ZVC7630W with your web browser, click **Setup** on the main page. The Web Configuration will start from the **Basic** page.



The Web Configuration contains settings that are required for the ZVC7630W in the left menu bar, Smart Wizard, Basic, Network, Video/Audio, Event Server, Motion detect, Event Config, Tools, USB, and Information.

4.2 Using Smart Wizard

ZVC7630W Smart Wizard lets you configure the camera easily and quickly. The wizard will guide you through the necessary settings in detailed instructions of each step.

To start the wizard, click **Smart Wizard** in the left menu bar.

Step 1. Camera Settings

Camera Settings

•Camera Name:

wireless network camera 1

•Location:

classroom 1

•Admin Password:

•••••

•Confirm Password:

•••••

Next >

Cancel

Enter the name and location for ZVC7630W

Enter and confirm administrator password

Step 2. IP Settings

IP Settings

☒ DHCP

☐ Static IP

• IP

192168030

• Subnet Mask

2552552550

• Default Gateway

19216801

• Primary DNS

• Secondary DNS

☐ PPPoE

• User Name

• Password

< Prev

Next >

Cancel

* Select the IP setting according to your network: **DHCP**, **Static IP**, or **PPPoE**.

Step 3. Email Settings

Email Settings

•SMTP Server Address:

mail.com

•Sender Email Address:

mymail@mail.com

•Authentication Mode:

☐ None ☒ SMTP

•Sender User Name:

mymail

•Sender Password:

••••••

•Receiver #1 Email Address:

john@mail.com

•Receiver #2 Email Address:

jay@mail.com

< Prev

Next >

Cancel

* Enter the required information for email with image.

- 18 -

Step 4. Wireless Networking

Wireless Networking

☒ Enable

Network ID(SSID):

default

Site Survey

Wireless Mode:

☒ Infrastructure ☐ Ad-Hoc

Channel:

6

Authentication:

Open

Encryption

☒ None ☐ WEP

Format

☒ ASCII ☐ HEX

Key Length

☒ 64 bits ☐ 128 bits

☒ WEP Key 1

☐ WEP Key 2

☐ WEP Key 3

☐ WEP Key 4

< Prev

Next >

Cancel

* Check the **Enable** box to enable wireless function of ZVC7630W. Complete all required information and click **Next>**.

Step 5. Confirm Settings

Confirm Settings

Camera Name:

wireless network camera 1

Location:

classroom 1

IP Mode:

DHCP

IP Address:

192.168.0.30

Subnet Mask:

255.255.255.0

Default Gateway:

192.168.0.1

MAC Address:

00:FF:00:05:21:01

Primary DNS Address:

Secondary DNS Address:

SMTP Server Address:

Sender Email Address:

Authentication mode:

None

Sender User Name:

Receiver #1 Email Address:

Receiver #2 Email Address:

Connection:

Infrastructure

Channel:

6

Authentication :

Open

Encryption :

None

< Prev

Apply

Cancel

The last step shows the configuration of your ZVC7630W. After all settings are confirmed, click **Apply** to finish the wizard and it will reboot the ZVC7630W automatically. Click **<Prev** to go back and make necessary changes, or click **Cancel** to undo/discard all changes.

4.3 Basic Setup

The Basic menu contains three sub-menus, Camera Name, Location, Date & Time, and User management.

Basic >> System

■ Basic

- **Camera Name:** Enter a description for your ZVC7630W
- **Location:** Enter a description of your ZVC7630W location

■ Indication LED

It allows you to set LED illumination as your desired. There are two options: **Normal** and **OFF**.

Basic >> Date & Time

■ Date & Time

- **TimeZone:** Select the proper time zone for the region from the drop-down menu.
- **Synchronize with PC:** Select this option to synchronize the ZVC7630W date & time with the connected computer.
- **Synchronize with NTP Server:** Select this option to synchronize the time with the NTP Server. You have to enter an IP address of the server then select the update interval.
- **Manual:** Select this option to enter the ZVC7630W date and time manually.

Basic >> User

■ Administrator

To prevent unauthorized access to your ZVC7630W Web Configuration, we strongly recommended you to change the default administrator password. Enter the administrator password twice to set and confirm it.

■ General User

- **Username:** Enter and add more users to allow access to your ZVC7630W in a regular basis
- **Password:** Enter the password for the new user(s)

Click **Add/Modify** to add the new user to the camera after you are finished. To modify the user's information, select the username from the **UserList** and click **Add/Modify**.

- **UserList:** Display all existing users of the ZVC7630W. To delete a user, select the username you want to delete and click **Delete**.

■ Guest

- **User Name:** Enter the guest's name to access your ZVC7630W
- **Password:** Enter the password for the new guest.
- **UserList:** Display the existing guests of your ZVC7630W. To delete a guest, select the name and click **Delete**.

NOTE: "General User" can access and use the Function buttons "Guest" can view live view images from the Web Configuration only "Administrator" has full control of the Web Configuration

4.4 Network Settings

The Network menu contains three sub-menus that provide the network settings for the camera, such as the IP Setting, DDNS Setting, IP Filter, and Wireless network.

The screenshot shows the 'Wireless Network Camera' web configuration interface in Microsoft Internet Explorer. The address bar shows 'http://192.168.0.30/admin/network.asp'. The page title is 'Wireless Network Camera'. On the left, there is a 'Smart Wizard' menu with options: Basic, Network (selected), IP Filter, Wireless, Video/Audio, Event Server, Motion Detect, Event Config, Tools, USB, and Information. The main content area is titled 'Network » Network' and contains several sections:

- IP setting:**
 - ☒ DHCP
 - IP: 192 . 168 . 0 . 30
 - Subnet Mask: 255 . 255 . 255 . 0
 - Default Gateway: 192 . 168 . 0 . 1
 - Primary DNS: [] . [] . [] . []
 - Secondary DNS: [] . [] . [] . []
 - ☐ Static IP
 - ☐ PPPoE
 - User Name: []
 - Password: []
- DDNS Setting:**
 - ☐ Enable
 - Provider: members.dyndns.org (dropdown)
 - Host Name: []
 - User Name: []
 - Password: []
- UPnP:**
 - ☒ Enable
- Ports Number:**
 - HTTP Port: 80 (default: 80)
 - RTSP Port: 554 (default: 554)

At the bottom right, there are 'Apply' and 'Cancel' buttons. The status bar at the bottom shows 'http://192.168.0.30/admin/wireless.asp'.

Network >> Network

IP Setting allows you to select the IP address mode and set up the related configuration.

- **DHCP:** Select this option when your network uses the DHCP server. When ZVC7630W starts up, it will be assigned an IP address from the DHCP server automatically.
- **Static IP:** Select this option to assign the IP address for the camera directly. You can use IP Finder to obtain the related setting values.

IP	Enter IP Address of ZVC7630W Default IP Address: 192.168.0.30
Subnet Mask	Enter Subnet Mask of ZVC7630W Default Subnet Mask: 255.255.255.0
Default Gateway	Enter Default Gateway of ZVC7630W Default address: 192.168.0.1
Primary/Secondary DNS	DNS (Domain Name System) translates domain names into IP addresses. Enter the Primary and Secondary DNS that provided by ISP.

- **PPPoE:** Select this option when you use a direct connection via the ADSL modem. Enter your PPPoE Account **User Name** and **Password**. ZVC7630W will get the IP address from your ISP when starting up.

NOTE: When setting up the IP Setting with PPPoE account, ZVC7630W gets the IP address from your ISP during start up and will send a notification email to you automatically. Therefore, you have to setup email/DDNS in advanced when using PPPoE as your connection type.

DDNS Setting allows you to assign a fixed host and domain name to a dynamic Internet IP address. Select **Enable** to use this feature. Then select the Provider from the drop-down list. Enter the required information to the **Host Name**, **User Name**, and **Password** boxes. You must sign-up for a DDNS service with a DDNS provider in advanced.

■ UPnP

ZVC7630W supports UPnP (Universal Plug and Play) which enables device-to-device interoperability from a set of computer network protocols. It also supports port auto mapping function so that you can access the ZVC7630W

even it is behind an NAT router or a firewall. Select **Enable** to enable this feature.

■ Ports Number

- **HTTP Port:** Default HTTP port is **80**
- **RTSP Port:** Default RTSP (Real Time Streaming Protocol) port is 554. It configures the transmission of streaming data within the network.

NOTE: We suggested to use port 1024 ~ 65535 if ZVC7630W is behind an NAT router or a firewall.

Network >> IP Filter

The IP Filter setting allows the administrator limits users within a range of IP address to access the ZVC7630W.

■ Start/End IP Address

Assign a range of IP address that are NOT allow to access the ZVC7630W. Enter the Start IP address and End IP address. Click **Add** to save the setting. You can repeat this step to assign more than one range of IP address.

For example, when you enter 192.168.0.50 for the Start IP Address and 192.168.0.80 for the End IP Address, all computers whose IP address set within 192.168.0.50 ~ 192.168.0.80 will NOT be able to access the ZVC7630W.

■ Deny IP List

It displays all of the IP addresses that are NOT allow to access the ZVC7630W. Click **Delete** to clear range of IP address or a single IP address.

Network >> Wireless Setting

■ Wireless

Select **Enable** to enable wireless function for ZVC7630W.

- **Network ID (SSID):** "default" SSID allows your ZVC7630W connects to any access point under the infrastructure network mode. To connect your ZVC7630W to a specific access point, you have to set the corresponding access point SSID. Set the same wireless channel and SSID when connects it to a Ad-Hoc mode.

Click **Site Survey** to display all available wireless networks, so you can easily connect to one of the available wireless networks.

Network » Wireless Setting

» Wireless

☒ Enable

Network ID(SSID):

ESSID	Mac	Channel	Mode	Privacy	Signal
corega	00:0a:79:aa:a3:7f	2	Infrastructure	Yes	0%
Jasmine	00:18:f3:64:4d:61	2	Infrastructure	Yes	0%
Fitivision-RDAP1	00:11:95:6a:1b:7f	6	Infrastructure	Yes	0%
DI-724P	00:50:18:38:41:aa	6	Infrastructure	Yes	0%
asus-wl520g	00:18:f3:64:4d:27	10	Infrastructure	No	60%
fiti-corega	00:0a:79:83:7a:7e	11	Infrastructure	No	100%
allen	00:19:cb:0a:bc:61	11	Infrastructure	No	100%

List of searching results

- **Wireless Mode:** Select the type of wireless communication for ZVC7630W
 - **Infrastructure**
 - **Ad-Hoc**
- **Channel:** Select the appropriate wireless channel
- **Authentication:** Select an authentication method to secure ZVC7630W from being used by unauthorized wireless users.
 - **Open**
 - **Shared-key**
 - **WPA-PSK**
 - **WPA2-PSK**

Open	Default setting of authentication mode. It communicates the encryption key across the wireless network.
Shared-key	Only allow communication with wireless devices with identical encryption settings.
WPA-PSK/ WPA2-PSK	WPA-PSK / WPA2-PSK are designed for users who do not have network access and must manually enter password to their access point/gateway and each computer within the wireless network.

The following settings must complete if you choose **Open** or **Shared-key** as the Authentication mode.

Encryption: Select **WEP** option to enable data encryption feature to secure ZVC7630W within the wireless network

Format: Select **ASCII** or **HEX** format for your encryption key according to the wireless network setting.

Key Length: Select WEP key length according to the wireless network setting.

Hex 64 bits: 10 characters (use only **0~9** & **A~F**)

Hex 128 bits: 26 characters (use only **0~9** & **A~F**)

ASCII 64 bits: 5 alphanumeric characters

ASCII 128 bits: 13 alphanumeric characters

WEP Key 1/2/3/4: Enter the # of WEP key(s) in the following boxes. WEP Key # must match with your wireless network setting.

The following settings must complete if you choose **WPA-PSK** or **WPA2-PSK** as the Authentication mode.

Encryption: Select **TKIP** or **AES**.

TKIP (Temporal Key Integrity Protocol) changes the temporal key every 10,000 packets to provide greater security than standard WEP setting.

AES (Advanced Encryption Standard) uses to ensure the highest degree of security and authenticity for digital information.

Pre-Shared Key: This is used to identify each other in the network. Enter the name in the box, and this name must match the Pre-shared key value in the remote device.

4.5 Video & Audio Setup

Video & Audio menu contains three sub-menus that provide video and audio settings for the ZVC7630W.

The screenshot shows a web browser window titled "Wireless Network Camera - Microsoft Internet Explorer". The address bar displays "http://192.168.0.30/admin/watch.cgi?url=camera.asp". The page header is "Wireless Network Camera". On the left sidebar, there are buttons for "Live View", "Setup", and "Smart Wizard". Under "Smart Wizard", a list of menu items is shown: "Basic", "Network", "Video/Audio" (highlighted), "Camera" (sub-item of Video/Audio), "Video", "Audio", "Event Server", "Motion Detect", "Event Config", "Tools", "USB", and "Information". The main content area is titled "Video & Audio » Camera". It features a live video feed showing two children drawing on a table, with a timestamp "2007.06.11 17:35:08" in the top left corner. Below the video feed, there are two sections: "Image Setting" and "Overlay Setting". The "Image Setting" section includes input fields for "Brightness" (8), "Contrast" (32), and "Saturation" (36), each with a range "(0~100)". There is a "Default" button next to the Saturation field. Below these are checkboxes for "Mirror" (Vertical and Horizontal) and "Light Frequency" (50Hz, 60Hz, and Outdoor). The "Overlay Setting" section has checkboxes for "Include Date & Time" and "Enable Opaque", both of which are checked. At the bottom right of the settings area are "Apply" and "Cancel" buttons.

Wireless Network Camera - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites Media Print Mail

Address http://192.168.0.30/admin/watch.cgi?url=camera.asp

Wireless Network Camera

Live View Setup Smart Wizard

- Basic
- Network
- **Video/Audio**
 - » **Camera**
 - » Video
 - » Audio
- Event Server
- Motion Detect
- Event Config
- Tools
- USB
- Information

Video & Audio » Camera

2007.06.11 17:35:08

» Image Setting

Brightness: 8 (0~100)

Contrast: 32 (0~100)

Saturation: 36 (0~100) Default

Mirror: ☐ Vertical ☐ Horizontal

Light Frequency: ☐ 50Hz ☒ 60Hz ☐ Outdoor

» Overlay Setting

- ☒ Include Date & Time
- ☒ Enable Opaque

Apply Cancel

Video & Audio >> Camera

■ Image Setting

- **Brightness:** Adjust the brightness level from 0 ~ 100
- **Contrast:** Adjust the contrast level from 0 ~ 100
- **Saturation:** Adjust the colors level from 0 ~ 100
Click **Default** to restore the default settings of the three options above.
- **Mirror:** Select **Horizontal** to mirror the image horizontally. Select **Vertical** to mirror the image vertically
- **Light Frequency:** Select the proper frequency according to the location of ZVC7630W: **50Hz**, **60Hz**, or **Outdoor**

■ Overlay Setting

- **Includes Date & Time:** Select this option to display the date & time stamp on the live view image
- **Enable Opaque:** Select this option to set a black background to the displayed date & time stamp

Video & Audio >> Video

■ MPEG4

- **Video Resolution:** Select the desired video resolution in three different formats: **VGA**, **QVGA** and **QQVGA**. The highest setting (VGA) gives you better video quality while it uses more resources within your network.
- **Video Quality:** Select the desired image quality in five different levels: **Lowest**, **Low**, **Medium**, **High**, and **Highest**.
- **Frame Rate:** Select **Auto** or a proper setting depending on your network status.

■ MJPEG

- **Video Resolution:** Select the desired video resolution in three different formats: **VGA**, **QVGA** and **QQVGA**. The highest setting (VGA) gives you better video quality while it uses more resources within your network.
- **Video Quality:** Select the desired image quality in five different levels: **Lowest**, **Low**, **Medium**, **High**, and **Highest**.
- **Frame Rate:** Select **Auto** or a proper setting depending on your network status.

-

NOTE: ZVC7630W supports both MPEG4 and MJPEG compression. MJPEG capture the images in JPEG format and require more bandwidth to view smooth video. Administrator can control the bandwidth of each connection through setting options above.

■ 3GPP

ZVC7630W supports 3GPP specification. Select the **Disable** option to disable this feature. Select **3GPP With Audio** or **3GPP Without Audio** to transfer video clips with or without audio.

If you use a mobile phone with 3GPP supports, you will be able to view real-time streaming image on your phone using the default player of the phone by enter the RTSP link: rtsp://(IP address of the camera)/3gp.

Video & Audio >> Audio

■ Camera Microphone In

Select **Enable** option to enable ZVC7630W audio function which allows you to receive an On-Site sound and voice from the ZVC7630W.

■ Camera Speaker Out

Select **Enable** option to enable ZVC7630W external speaker function which allows you to connect an external speaker and play the sound and voice through the ZVC7630W.

- **Volume:** Set the speaker's volume.

4.6 Event Server Configuration

The Event Server menu contains three sub-menus that allow you to upload images to FTP, send emails with images, and store images to a NAS system.

The screenshot shows a web browser window titled "Wireless Network Camera - Microsoft Internet Explorer". The address bar shows "http://192.168.0.30/admin/ftp.asp". The page has a header "Wireless Network Camera". On the left, there is a "Smart Wizard" menu with options: Live View, Setup, Basic, Network, Video/Audio, Event Server (highlighted), FTP (sub-selected), Email, NetStorage, Motion Detect, Event Config, Tools, USB, and Information. The main content area is titled "Event Server Setting >> FTP". It contains the following fields and options:

- Host Address:
- Port Number:
- User Name:
- Password:
- Directory Path:
- Passive mode: ☒ Enable

At the bottom right of the form are three buttons: Test, Apply, and Cancel.

After you complete the required settings for FTP, Email, or Network Storage, click **Test** to test the configuration to see if it is correct or not. After test is successful, click **Apply**.

Event Server Setting>> FTP

■ FTP

- **Host Address:** Enter the IP address of the target FTP server
- **Port Number:** Enter the port number for the FTP server
- **User Name:** Enter the user name to login to the FTP server
- **Password:** Enter the password to login to the FTP server
- **Directory Path:** Enter the destination folder for uploading the images, for example: /Test/
- **Passive Mode:** Select **Enable** to enable the passive mode

Event Server Setting >> Email

■ Email

- **SMTP Server Address:** Enter the mail server address, for example: mymail.com
- **Sender Email Address:** Enter the email address of the user who will send the email, for example: John@mymail.com
- **Sender User Name:** Enter the sender email address username to login the mail server
- **Sender Password:** Enter the sender email address password to login the mail server
- **Receiver #1 Email Address:** Enter the first email address of the receiver who will receive the email
- **Receiver #2 Email Address:** Enter the second email address of the receiver who will receive the email

Event Server Setting >> Network Storage

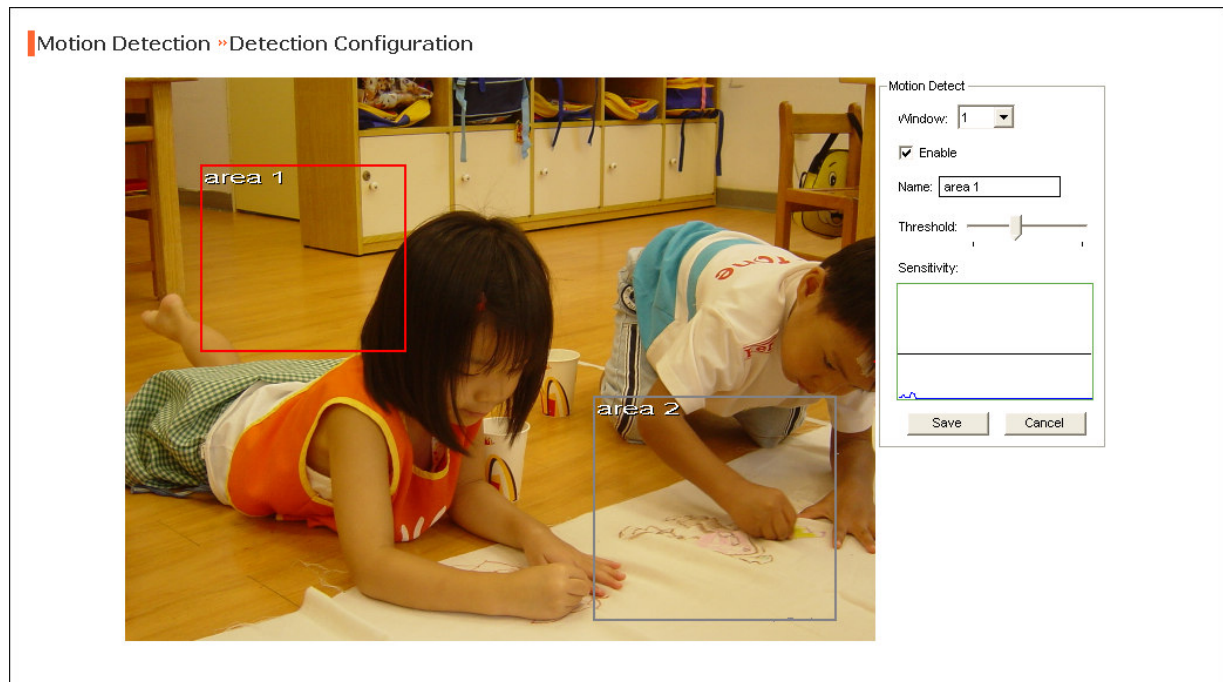
■ Net Storage

- **Samba Server Address:** Enter the IP address of the Network Storage server
- **Share:** Assign the folder on the Network Storage server to share the files to other users
- **Path:** Assign the path for uploading the files on the Network Storage server, for example: /Test/
- **User Name:** Enter the user name (if any) to login to the Network Storage server
- **Password:** Enter the password (if any) to login to the Network Storage server
- **Split By:** Use this option when the file is too large to upload. It will split the file according to the selected **File Size** or **Recording Time**
- **When Disk Full:** Select **Stop Recording** or **Recycle – Delete Oldest Folder of File** when the storage space on the Network Storage server is disk full.

4.7 Motion Detect

The Motion Detect menu contains the command and option that allow you to enable and setup the motion detection feature of the ZVC7630W. It provides up to two detecting areas.

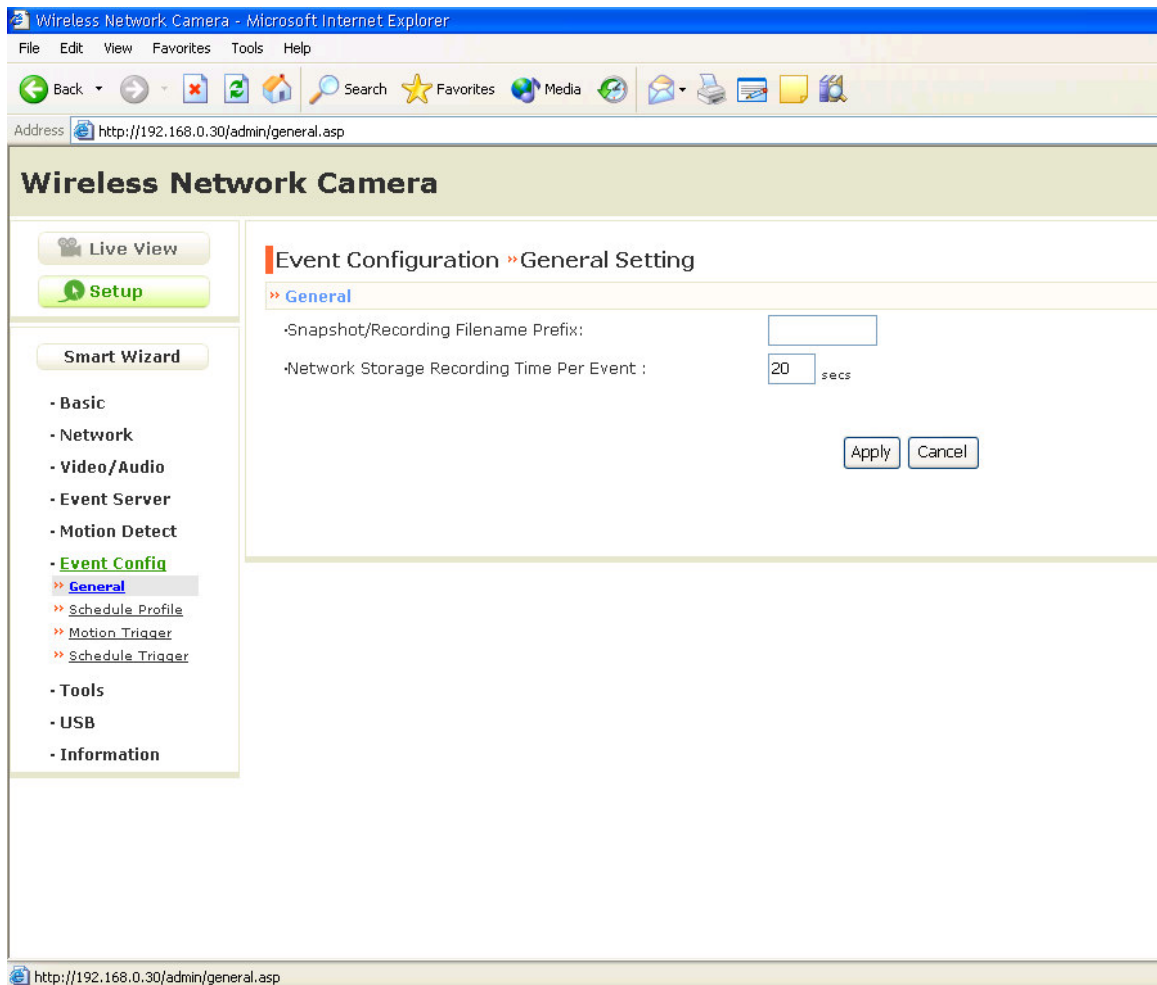
To enable the detecting areas, select **Window 1** or **2** from the drop-down list, and select **Enable**. When the detecting area(s) is enabled, you can use the mouse to move the detecting area(s) and change the area coverage.



- **Name:** Assign a name of the detecting area(s)
- **Threshold:** Move the slide bar to adjust the level for detecting motion and record video

4.8 Event Config

The Event Config menu contains four sub-menus that provide the commands to configure event profiles.



Event Configuration >> General Setting

- **Snapshot/Recording Filename Prefix:** You can assign a given prefix to each new captured file. Leave this option blank to use the default setting.
- **Network Storage Recording Time Per Even:** Set a recording time while you are using Network Storage solution.

Event Configuration >> Arrange Schedule Profile

This sub-menu displays the scheduled profile(s). To customize the profile, click **Add** and enter a description for the profile in the prompt dialog window. Click **OK** to add it to the Schedule Profiles list. Click **Delete** to delete the selected profile from the list.

- **Profile Name:** Display profile name(s) that you added to the Schedule Profiles list
- **Weekdays:** Select the day(s), Monday to Friday, that you want to assign in the schedule profile separately. Assigned weekday(s) will display in green color
- **Time List:** Display the period of time that you have assigned within the selected weekday(s). Click **Add this to all weekdays** to assign the same period of time to every weekday(s). Click **Delete this from all weekdays** to remove the selected period from every weekday(s).
- **Start/End Time:** Enter the start and end time and then click **Add** to assign a time period within in the selected weekday.

Event Configuration >> Motion Detect Trigger

Select **Enable** option to enable the trigger function of the ZVC7630W to send captured images of the detecting area(s) to an FTP server, email receiver, Network Storage server, or any connected USB device.

- **Schedule Profile:** Select a Schedule Profile from the drop-down list.
- **Action:** Select a destination for the captured images to be sent to: **Send Email, FTP Upload, Record to Network Storage, or Save Image to USB.**

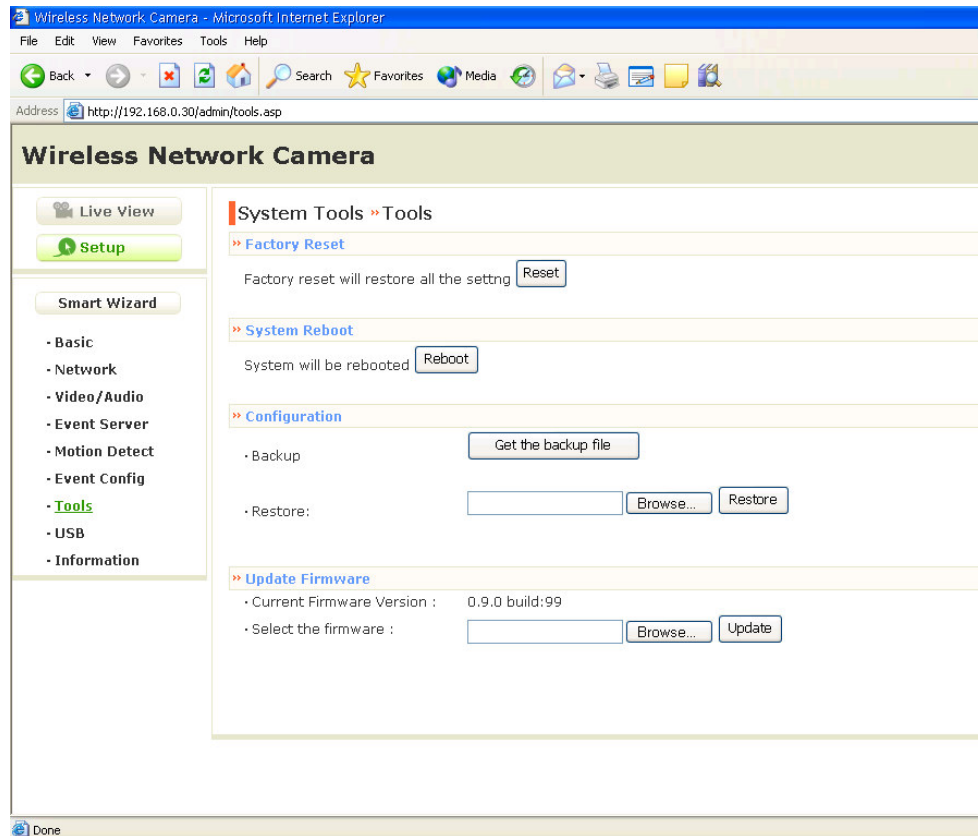
Event Configuration >> Schedule Trigger

You can configure the schedule for trigger function of the ZVC7630W separately with **Email, FTP, or Network Storage**. Select **Enable** option on each item, then select a **Schedule Profile** from the drop-down list and set the **Interval** time.

NOTE: If the recording interval time under Network Storage Recording Time Per Event option in General Setting is longer than the Interval time under Network Storage Schedule, the recorded file will be a continuous video clip. For example, if the Network Storage Recording Time Per Event is set to 10 seconds and the Interval is set to 5 seconds, ZVC7630W will record a 10 seconds video clip every 5 seconds.

4.9 Tools

The Tools menu provides commands that allow you to restart and/or reset the ZVC7630W. You can also backup, restore your configuration, and upgrade firmware for the ZVC7630W.



■ Factory Reset

Click **Reset** to restore all factory default settings for the ZVC7630W.

■ System Reboot

Click **Reboot** to restart the ZVC7630W. It will power OFF the under then power ON automatically. ZVC7630W configuration will be retained after System Reboot.

■ Configuration

You can save your ZVC7630W configuration as a backup file on your computer. You can restore it by retrieving the backup file.

- **Backup:** Click **Get the backup file** to save the current configuration of the ZVC7630W to your computer.
- **Restore:** Click **Browse** to locate the backup file and click **Restore** the configuration of the ZVC7630W.

■ Update Firmware

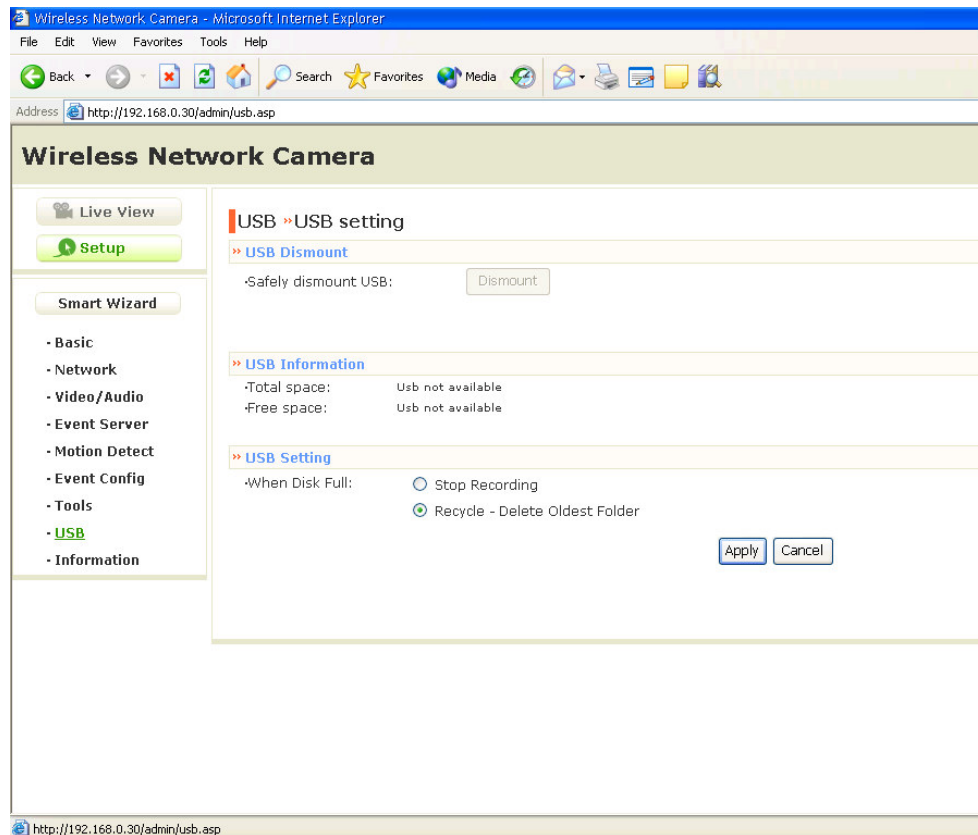
It displays the current firmware version. You can upgrade it once you obtained a latest version of firmware.

- **Select the firmware:** Click **Browse** to locate the updated firmware file and click **Update**.

NOTE: ZVC7630W must be power ON during firmware upgrade. Otherwise, the original firmware may corrupted due to the failure of firmware upgrade.

4.10 USB

The USB menu provides the information and controls of the connected USB device.



■ USB Dismount

Click **Dismount** from the USB menu or press and hold the USB Unmount button on ZVC7630W for 4 seconds to safely remove the connected USB device.

■ USB Information

Display the **Total space** and **Free space** of the connected USB device, such as a USB Memory Stick.

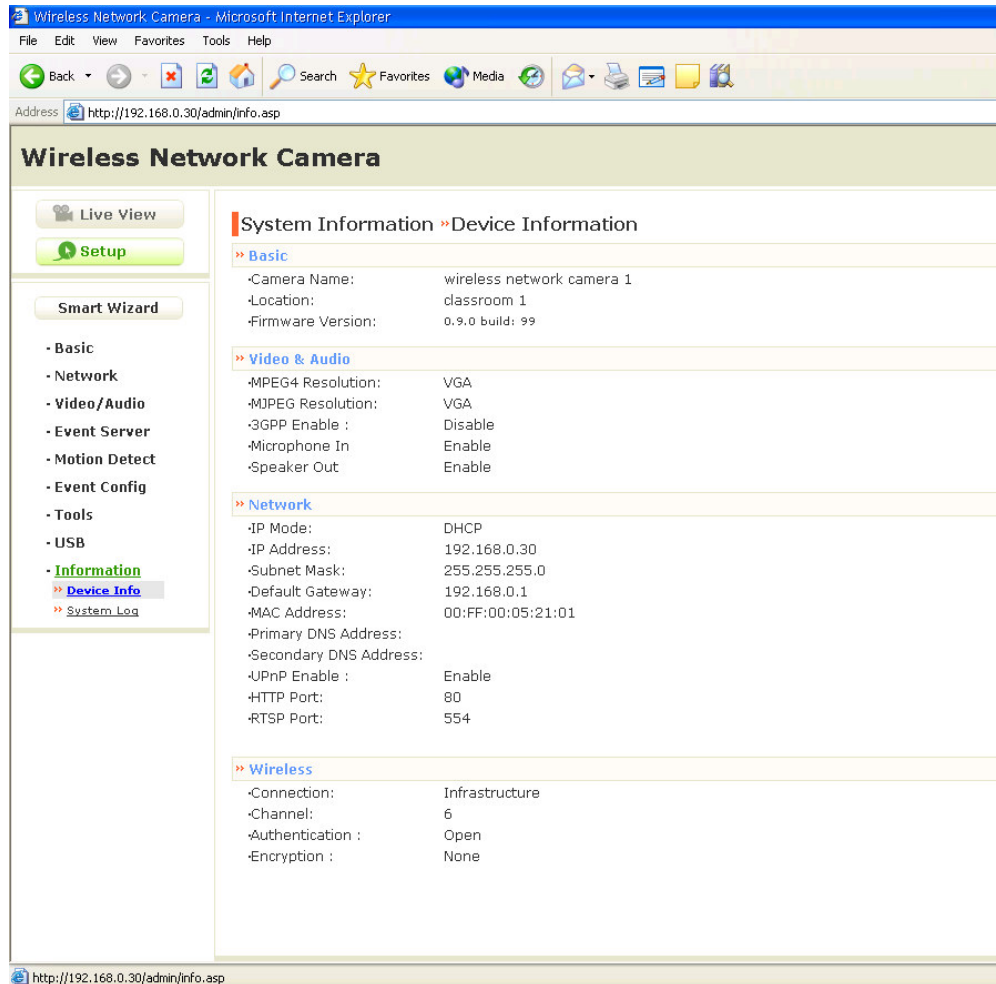
■ USB Setting

- **When Disk Full:** Select **Stop Recording** or **Recycle – Delete Oldest Folder of File** when the USB storage device is disk full.

NOTE: USB storage device can only be used to store images, not video clips.

4.11 Information

The Information menu displays the current configuration and events log of the ZVC7630W.



■ Device Info

Display the Basic, Video & Audio, and Network settings of the ZVC7630W.

■ System Log

This table displays all events log recorded by the system.

Chapter 5

APPENDIX

A.1 Specification

■ Image Sensor

Sensor	1/4" color CMOS
Resolution	640x480

■ Video

Compression	MPEG4/MJPEG
Video resolution	VGA/QVGA/QQVGA; 30fps max.

■ System Hardware

Processor	ARM9 base
RAM	32MB SDRAM
ROM	8MB NOR Flash
Power	DC 5V

■ Communication

LAN	10/100Mbps Fast Ethernet Auto-sensed, Auto-MDIX
WLAN	IEEE 802.11b/g
Protocol support	TCP/IP, UDP, ICMP, DHCP, NTP, DNS, DDNS, SMTP, FTP, Samba, PPPoE, UPnP, RTP, RTSP, RTCP

■ User Interface

LAN	One RJ-45 port
Reset	One Reset button
USB	USB 1.1 port with one unmount button
Power	500mA Max.
File System Support	FAT,FAT32
LEDs	Power LED (amber) Link LED (green)

■ Audio

Input	Built-in MIC
Output	Headphone output jack (Mono)
Codec	PCM/AMR (AMR is for 3GPP only)

■ Software

OS Support	Windows 2000/XP/Vista
Browser	Internet Explorer 5.0 or above

Software

Ultra View for playback/
recording/configuration features

■ Operating Environment**Temperature**

Operation: 5°C ~ 45°C

Storage: -15°C ~ 60°C

Humidity

Operation: 20~85% non-condensing

Storage: 0% ~ 90% non-condensing

■ EMI

FCC Class B, CE Class B

A.2 Glossary of Terms

NUMBERS

10BASE-T	10BASE-T is Ethernet over UTP Category III, IV, or V unshielded twisted-pair media.
100BASE-TX	The two-pair twisted-media implementation of 100BASE-T is called 100BASE-TX.

A

ADPCM	Adaptive Differential Pulse Code Modulation, a new technology improved from PCM, which encodes analog sounds to digital form.
AMR	AMR (Adaptive Multi-Rate) is an audio data compression scheme optimized for speech coding, which is adopted as the standard speech codec by 3GPP.
Applet	Applets are small Java programs that can be embedded in an HTML page. The rule at the moment is that an applet can only make an Internet connection to the computer form that the applet was sent.
ASCII	American Standard Code For Information Interchange, it is the standard method for encoding characters as 8-bit sequences of binary numbers, allowing a maximum of 256 characters.
ARP	Address Resolution Protocol. ARP is a protocol that resides at the TCP/IP Internet layer that delivers data on the same network by translating an IP address to a physical address.
AVI	Audio Video Interleave, it is a Windows platform audio and video file type, a common format for small movies and videos.

B

BOOTP	Bootstrap Protocol is an Internet protocol that can automatically configure a network device in a diskless workstation to give its own IP address.
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C

Communication	Communication has four components: sender, receiver, message, and medium. In networks, devices and application tasks and processes communicate messages to each other over media. They represent the sender and receivers. The data they send is the message. The cabling or transmission method they use is the medium.
Connection	In networking, two devices establish a connection to communicate with each other.

D

DHCP	Developed by Microsoft, DHCP (Dynamic Host Configuration Protocol) is a protocol for assigning dynamic
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IP addresses to devices on a network. With dynamic addressing, a device can have a different IP address every time it connects to the network. In some systems, the device's IP address can even change while it is still connected. It also supports a mix of static and dynamic IP addresses. This simplifies the task for network administrators because the software keeps track of IP addresses rather than requiring an administrator to manage the task. A new computer can be added to a network without the hassle of manually assigning it a unique IP address. DHCP allows the specification for the service provided by a router, gateway, or other network device that automatically assigns an IP address to any device that requests one.

DNS

Domain Name System is an Internet service that translates domain names into IP addresses. Since domain names are alphabetic, they're easier to remember. The Internet however, is really based on IP addresses every time you use a domain name the DNS will translate the name into the corresponding IP address. For example, the domain name *www.network_camera.com* might translate to *192.167.222.8*.

E

Enterprise network

An enterprise network consists of collections of networks connected to each other over a geographically dispersed area. The enterprise network serves the needs of a widely distributed company and operates the company's mission-critical applications.

Ethernet

The most popular LAN communication technology. There are a variety of types of Ethernet, including 10Mbps (traditional Ethernet), 100Mbps (Fast Ethernet), and 1,000Mbps (Gigabit Ethernet). Most Ethernet networks use Category 5 cabling to carry information, in the form of electrical signals, between devices. Ethernet is an implementation of CSMA/CD that operates in a bus or star topology.

E

Fast Ethernet

Fast Ethernet, also called 100BASE-T, operates at 10 or 100Mbps per second over UTP, STP, or fiber-optic media.

Firewall

Firewall is considered the first line of defense in protecting private information. For better security, data can be encrypted. A system designed to prevent unauthorized access to or from a private network. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially Intranets all messages entering or leaving the intranet pass through the firewall, which

examines each message and blocks those that do not meet the specified security criteria.

G

Gateway

A gateway links computers that use different data formats together.

Group

Groups consist of several user machines that have similar characteristics such as being in the same department.

H

HEX

Short for hexadecimal refers to the base-16 number system, which consists of 16 unique symbols: the numbers 0 to 9 and the letters A to F. For example, the decimal number 15 is represented as F in the hexadecimal numbering system. The hexadecimal system is useful because it can represent every byte (8 bits) as two consecutive hexadecimal digits. It is easier for humans to read hexadecimal numbers than binary numbers.

I

Intranet

This is a private network, inside an organization or company that uses the same software you will find on the public Internet. The only difference is that an Intranet is used for internal usage only.

Internet

The Internet is a globally linked system of computers that are logically connected based on the Internet Protocol (IP). The Internet provides different ways to access private and public information worldwide.

Internet address

To participate in Internet communications and on Internet Protocol-based networks, a node must have an Internet address that identifies it to the other nodes. All Internet addresses are IP addresses

IP

Internet Protocol is the standard that describes the layout of the basic unit of information on the Internet (the *packet*) and also details the numerical addressing format used to route the information. Your Internet service provider controls the IP address of any device it connects to the Internet. The IP addresses in your network must conform to IP addressing rules. In smaller LANs, most people will allow the DHCP function of a router or gateway to assign the IP addresses on internal networks.

IP address

IP address is a 32-binary digit number that identifies each sender or receiver of information that is sent in packets across the Internet. For example 80.80.80.69 is an IP address. When you "call" that number, using any connection methods, you get connected to the computer that "owns" that IP address.

ISP

ISP (Internet Service Provider) is a company that

maintains a network that is linked to the Internet by way of a dedicated communication line. An ISP offers the use of its dedicated communication lines to companies or individuals who can't afford the high monthly cost for a direct connection.

J

JAVA

Java is a programming language that is specially designed for writing programs that can be safely downloaded to your computer through the Internet without the fear of viruses. It is an object-oriented multi-thread programming best for creating applets and applications for the Internet, Intranet and other complex, distributed network.

L

LAN

Local Area Network a computer network that spans a relatively small area sharing common resources. Most LANs are confined to a single building or group of buildings.

M

MJPEG

MJPEG (Motion JPEG) composes a moving image by storing each frame of a moving picture sequence in JPEG compression, and then decompressing and displaying each frame at rapid speed to show the moving picture.

MPEG4

MPEG4 is designed to enable transmission and reception of high-quality audio and video over the Internet and next-generation mobile telephones.

N

NAT

Network Address Translator generally applied by a router that makes many different IP addresses on an internal network appear to the Internet as a single address. For routing messages properly within your network, each device requires a unique IP address. But the addresses may not be valid outside your network. NAT solves the problem. When devices within your network request information from the Internet, the requests are forwarded to the Internet under the router's IP address. NAT distributes the responses to the proper IP addresses within your network.

Network

A network consists of a collection of two or more devices, people, or components that communicate with each other over physical or virtual media. The most common types of network are:

LAN – (local area network): Computers are in close distance to one another. They are usually in the same office space, room, or building.

WAN – (wide area network): The computers are in

different geographic locations and are connected by telephone lines or radio waves.

NWay Protocol

A network protocol that can automatically negotiate the highest possible transmission speed between two devices.

P

PCM

PCM (Pulse Code Modulation) is a technique for converting analog audio signals into digital form for transmission.

PING

Packet Internet Groper, a utility used to determine whether a specific IP address is accessible. It functions by sending a packet to the specified address and waits for a reply. It is primarily used to troubleshoot Internet connections.

PPPoE

Point-to-Point Protocol over Ethernet. PPPoE is a specification for connecting the users on an Ethernet to the Internet through a common broadband medium, such as DSL or cable modem. All the users over the Ethernet share a common connection.

Protocol

Communication on the network is governed by sets of rules called protocols. Protocols provide the guidelines devices use to communicate with each other, and thus they have different functions. Some protocols are responsible for formatting and presenting and presenting data that will be transferred from file server memory to the file server's network adapter Others are responsible for filtering information between networks and forwarding data to its destination. Still other protocols dictate how data is transferred across the medium, and how servers respond to workstation requests and vice versa. Common network protocols responsible for the presentation and formatting of data for a network operating system are the Internetwork Packet Exchange (IPX) protocol or the Internet Protocol (IP). Protocols that dictate the format of data for transfer across the medium include token-passing and Carrier Sense Multiple Access with Collision Detection (CSMA/CD), implemented as token-ring, ARCNET, FDDI, or Ethernet. The Router Information Protocol (RIP), a part of the Transmission Control Protocol/Internet Protocol (TCP/IP) suite, forwards packets from one network to another using the same network protocol.

R

RJ-45

RJ-45 connector is used for Ethernet cable connections.

Router

A router is the network software or hardware entity charged with routing packets between networks.

RTP

RTP (Real-time Transport Protocol) is a data transfer protocol defined to deliver **live media** to the clients at the same time, which defines the transmission of video

	and audio files in real time for Internet applications.
RTSP	RTSP (Real-time Streaming Protocol) is the standard used to transmit stored media to the client(s) at the same time, which provides client controls for random access to the content stream.
<u>S</u>	
Server	It is a simple computer that provides resources, such as files or other information.
SIP	SIP (Session Initiated Protocol) is a standard protocol that delivers the real-time communication for Voice over IP (VoIP), which establishes sessions for features such as audio and video conferencing.
SMTP	The Simple Mail Transfer Protocol is used for Internet mail.
SNMP	Simple Network Management Protocol. SNMP was designed to provide a common foundation for managing network devices.
Station	In LANs, a station consists of a device that can communicate data on the network. In FDDI, a station includes both physical nodes and addressable logical devices. Workstations, single-attach stations, dual-attach stations, and concentrators are FDDI stations.
Subnet mask	In TCP/IP, the bits used to create the subnet are called the subnet mask.
<u>T</u>	
(TCP/IP)	Transmission Control Protocol/Internet Protocol is a widely used transport protocol that connects diverse computers of various transmission methods. It was developed by the Department of Defense to connect different computer types and led to the development of the Internet.
Transceiver	A transceiver joins two network segments together. Transceivers can also be used to join a segment that uses one medium to a segment that uses a different medium. On a 10BASE-5 network, the transceiver connects the network adapter or other network device to the medium. Transceivers also can be used on 10BASE-2 or 10BASE-T networks to attach devices with AUI ports.
<u>U</u>	
UDP	The User Datagram Protocol is a connectionless protocol that resides above IP in the TCP/IP suite
User Name	The USERNAME is the unique name assigned to each person who has access to the LAN.
Utility	It is a program that performs a specific task.
UTP	Unshielded twisted-pair. UTP is a form of cable used by all

access methods. It consists of several pairs of wires enclosed in an unshielded sheath.

W

WAN

Wide-Area Network. A wide-area network consists of groups of interconnected computers that are separated by a wide distance and communicate with each other via common carrier telecommunication techniques.

WEP

WEP is widely used as the basic security protocol in Wi-Fi networks, which secures data transmissions using 64-bit or 128-bit encryption.

Windows

Windows is a graphical user interface for workstations that use DOS.

WPA

WPA (Wi-Fi Protected Access) is used to improve the security of Wi-Fi networks, replacing the current WEP standard. It uses its own encryption, Temporal Key Integrity Protocol (TKIP), to secure data during transmission.

WPA2

Wi-Fi Protected Access 2, the latest security specification that provides greater data protection and network access control for Wi-Fi networks. WPA2 uses the government-grade AES encryption algorithm and IEEE 802.1X-based authentication, which are required to secure large corporate networks.